

COVID-19 Vaccines Update: Development and Deployment

Amy Walker
Director, Infectious Diseases Policy
Biotechnology Innovation Organization
February 2021
awalker@bio.org

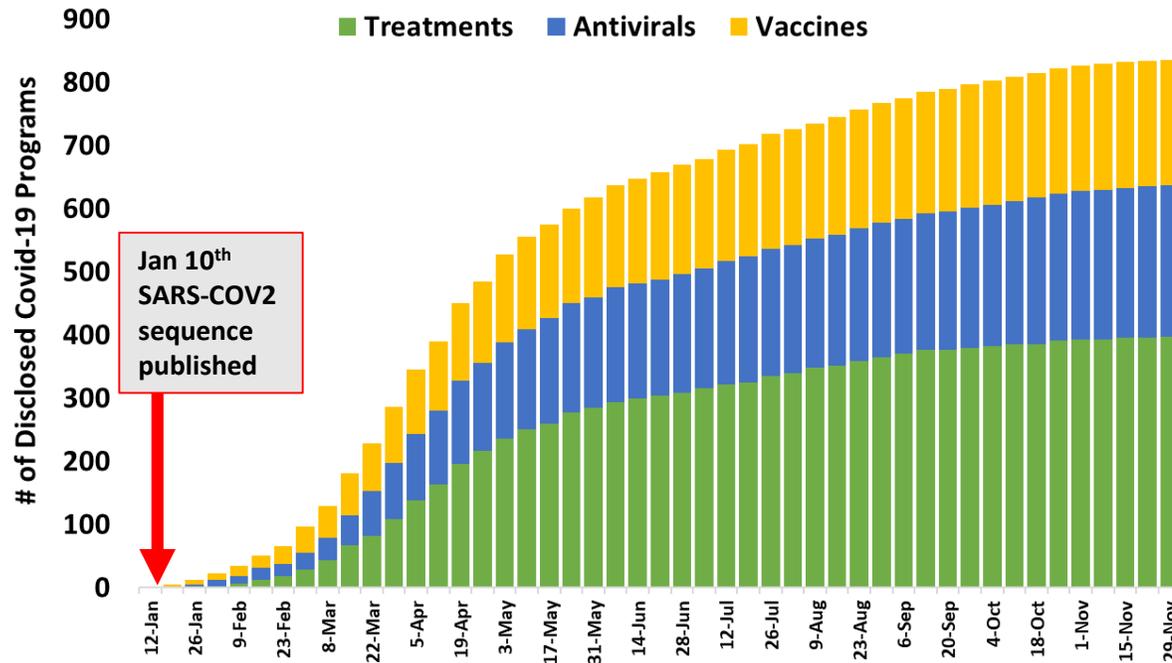


Timing of Response by Industry

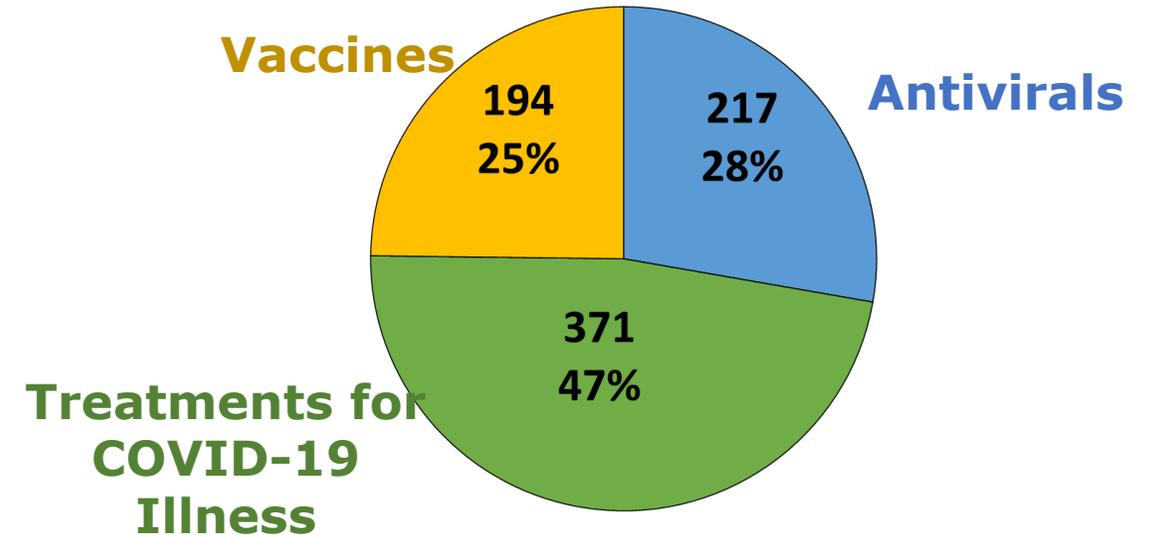
838 unique drug programs launched in 11 months

73% originated in Small Companies

52% originated in US



Week of first press release announcing program



Drug Type	Repurposed	Redirected	New for Covid-19
Antivirals	26%	14%	60%
Treatments	60%	31%	9%
Vaccine	2%	3%	95%

Weekly pipeline updates:

www.bio.org/covidpipelinetracker

Clinical & Preclinical Stage Vaccine Pipeline

 BARDA / DoD funding

 OWS funded

 Jointly developed



Source: Biomedtracker, Biocentury, BIO Industry Analysis
 1. PrEP Biopharm vaccine dsRNA, all others mRNA
 Oxford, Astrazeneca: ChAdOx1. Symvivo: bacTRL-Spike. Baylor College: BCG tuberculosis vaccine.
 Sinopharm with two vaccines in phase 1 trials (one beginning Apr 12 the other Apr 27)

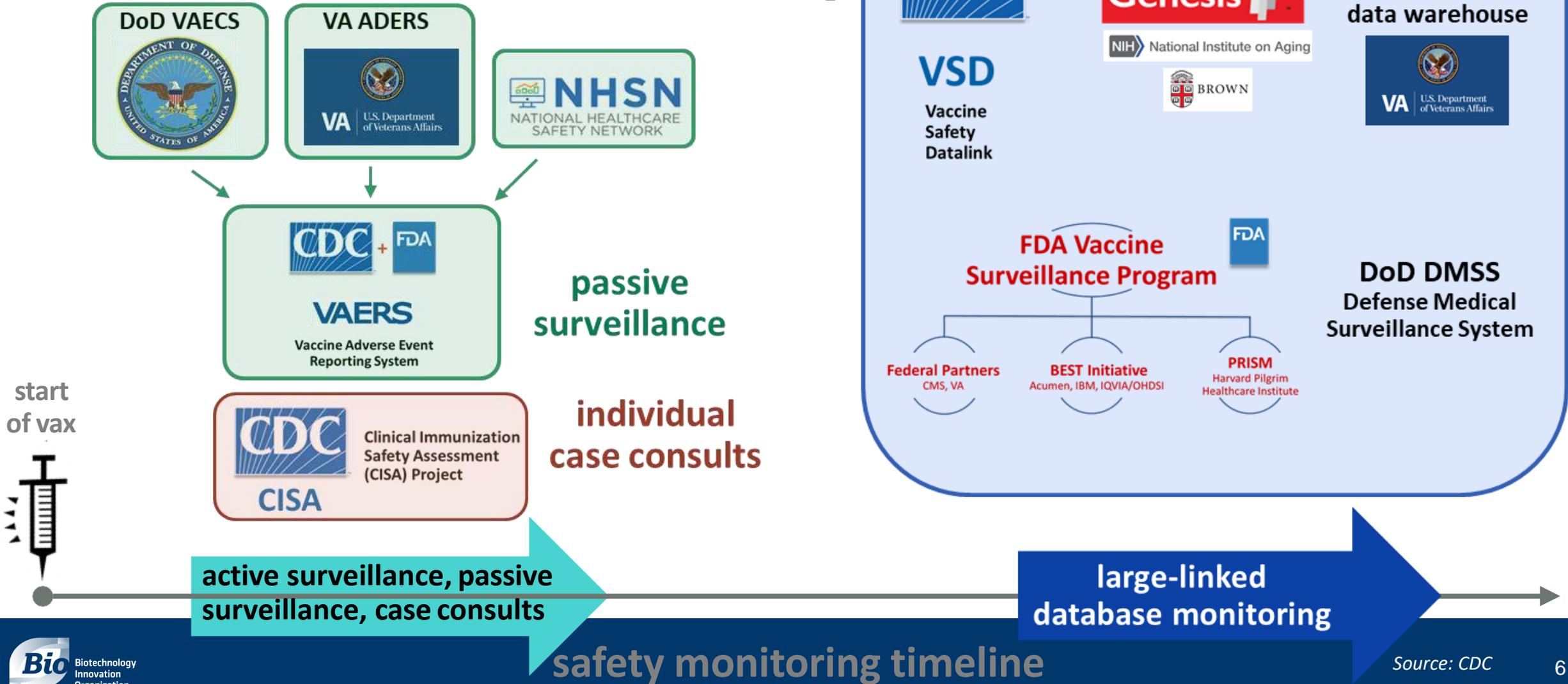
Info as of Jan 26, 2021, not exhaustive

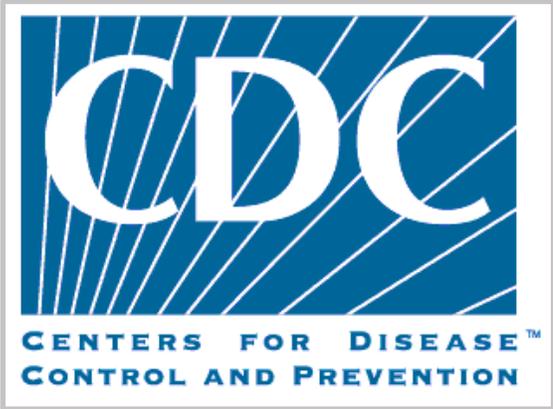
The Speed of COVID-19 Vaccine Development

- Unprecedented pace of development **without sacrificing efficacy and safety**
- Clinical trials were larger than with other vaccines (30,000 - 40,000 people)
- *Like Building a House:*
 - Existing foundations
 - Years of research on other viruses
 - New technology
 - Leverage new science to develop vaccines – no need for the virus to grow
 - Strong collaboration
 - FDA, companies, doctors all working to do more together
 - Extra and prioritized resources
 - Companies moved staff to COVID from all other projects



Ongoing Monitoring Will Provide More Information on COVID-19 Vaccine Safety





1. text message check-ins from CDC (daily 1st week; weekly thru 6 weeks; then 3, 6, and 12 mo.)
vaccine recipient completes web survey



This Photo by Unknown Author is licensed under CC BY-SA

Vaccine recipient



- ✓ missed work
- ✓ unable to do normal daily activities
- ✓ received medical care

2. clinically important health impact reported



Call center

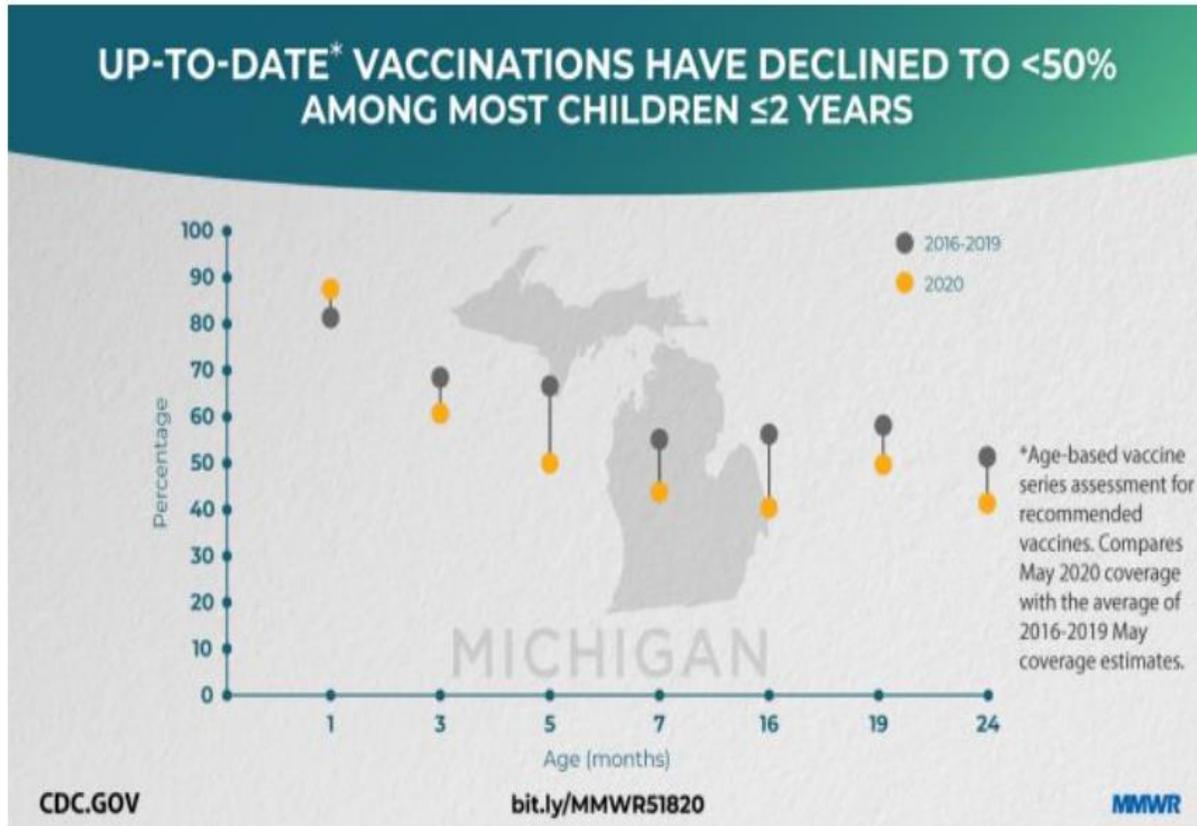


This Photo by Unknown Author is licensed under CC BY-SA

3. a VAERS customer service representative conducts active telephone follow-up on a clinically important event and takes a report if appropriate; also reminds about second dose at proper interval



Declines in Routine Immunization – *Risking Infectious Disease Outbreaks on top of COVID-19*



- CDC estimates that vaccination coverage declined in all childhood milestone age cohorts except for birth-dose hepatitis B coverage during the pandemic
- A study by Avalere found that adolescent and adult vaccination rates declined between 41%-53% from March-August 2019 to March-August 2020

BIO Resources

- COVID Vaccine Facts: <https://www.covidvaccinefacts.org/>
- COVID Pipeline Tracker: <https://www.bio.org/policy/human-health/vaccines-biodefense/coronavirus/pipeline-tracker>
- BIO COVID website: <https://www.bio.org/policy/human-health/vaccines-biodefense/coronavirus>

